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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,857	05/17/2006	Sylke Klein	MERCK-3161	8090
23599	7590	10/11/2011		
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201				
EXAMINER				
MAL NGOC LAN THI				
ART UNIT		PAPER NUMBER		
1733				
NOTIFICATION DATE		DELIVERY MODE		
10/11/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mwzb.com

**Office Action Summary****Application No.**

10/579,857

**Applicant(s)**

KLEIN ET AL.

**Examiner**

NGOCLAN MAI

**Art Unit**

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 1-16 and 18-20 is/are pending in the application.
- 5a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
- 6) ☒ Claim(s) 2, 3, 7, 9-12, and 18 is/are allowed.
- 7) ☒ Claim(s) 1, 4-6, 8, 19 and 20 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-889)  
Paper No(s) Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s) Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 7, 2010 has been entered.

#### ***Status of Claims***

Claims 1-16, 18-20 are in the application, wherein claims 1, 2, 7, 8, 9, 11, 13-16, 18 are currently amended and claim 20 is newly added. Claims 1-2, 7-12, 18-20 are under examination and claims 13-16 have been withdrawn from consideration.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Status of Previous Rejection***

The previous rejections to claims 1, 4-8 17 and 19 as being unpatentable over Ross in view of Tecle is withdrawn in light of applicant's amendment filed.

The following is a quotation of the fourth paragraph of 35 U.S.C. 112:

Subject to the [fifth paragraph of 35 U.S.C. 112], a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

Claim 19 is rejected under 35 U.S.C. 112, 4th paragraph, as being of improper dependent form for failing to further limit the subject matter of the claim upon which it depends, or for failing to include all the limitations of the claim upon which it depends. The claim depends on cancel claim 17. Applicant may cancel the claim(s), amend the claim(s) to place the claim(s) in

proper dependent form, rewrite the claim(s) in independent form, or present a sufficient showing that the dependent claim(s) complies with the statutory requirements.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-6, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Eustice (U.S. Patent No. 3,915,729).

Regarding claims 1 and 4, Eustice discloses solder paste comprising metal solder particles dispersed in a liquid vehicle, wherein the vehicle comprises (column 1, lines 43-47) dimers, trimers, and/or tetramers of unsaturated fatty acid, up to 50% of a wax, i.e., binder (column 1, lines 47-53), a solvent (column 2, lines 48-50), and a flux which is known to remove activity of oxidation layers on the surface of the metal powder which meets the limitation etching agent (column 2, lines 51-54). The solder composition is normally 75-95 part of solder powder and 5-25 parts of vehicle. See column 2, lines 58-62.

Regarding claims 5-6, since the solder paste taught by Eustice containing the same etching agent the applicant, the limitations etching activity for antireflection layer of solar cells, or "removal activity of oxidation layers and/or nitride layers of Si" would inherently possessed by the paste of cited reference. Therefore, the burden is on the applicant to prove that the product of the prior art does not necessarily or inherently possesses characteristics attributed to the claimed

product. In re Spade, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990), In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977) and also see MPEP § 2112.01.

Regarding claim 20, Eustice discloses the solvent may be employed as thinner, which is also known as diluents.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eustice.

Eustice disclose the metal powder includes Au, Ag, Sn, Ge, Si, Sb, Bi, Pb, In Ga, Zn, Cu, phosphorous alloy thereof and mixture thereof. See column 26-34. While Eustice does not specifically disclose the metal is at least one the metal recited in the instant claim, the solder metal taught by Eustice overlaps the claimed ranges establishing a *prima facie* evidence of obviousness. It would have been obvious to one having ordinary skill in the art to have selected the portion of metals that corresponds to the claimed range. *In re Malagari*, 184 USPQ 549 (CCPA 1974).

Claims 2, 3, 7, 9-12 are allowed.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 4-8 and 19 under have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, see pages 5-6, filed 9/7/2010, with respect to the rejection(s) of claim(s) 1, 4-8 and 19 under 35 U.S.C. 103(a) over Ross in view of Tecle have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Eustice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGOCLAN MAI whose telephone number is (571)272-1246. The examiner can normally be reached on 8:30-5:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Roy King/  
Supervisory Patent Examiner, Art Unit  
1733

n.m.